

Victor A. Maroni

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Professional Experience

- Current principal research interests include
 - the application of spectroscopic and synchrotron x-ray methods to the study of high-critical-temperature superconductivity, molecular sieve catalysis, and corrosion;
 - the vibrational analysis of polyatomic molecules and lattices; and
 - the preparation, physicochemical characterization, and microstructural examination of high-critical-temperature superconducting materials/structures.
- Actively involved in the planning, development, utilization, and management of the beamline facility operated at Argonne's Advanced Photon Source by the Materials Research Collaborative Access Team.
- Engaged in work aimed at
 - developing strategies for the utilization of Argonne facilities and expertise in support of chemical and biological terrorism mitigation and attribution and
 - synthesis and characterization of porous metal-organic frameworks for hydrogen storage and catalysis.
- Laser-Raman spectroscopic investigations and physico-chemical studies of molten salt systems.
- Fusion reactor research activities including liquid metals chemistry, hydrogen permeation, tritium system studies, and blanket processing technology.
- Program management, Department of Energy/Office of Fusion Energy First Wall/Blanket/Shield Engineering Test Program.

Professional Society Activities

- Society for Applied Spectroscopy
- Materials Research Society
- Sigma Xi
- Physica C: Superconductivity and Its Applications (member, Editorial Board)

Awards

- Council for Chemical Research Collaboration Success Award, 2000
- Argonne National Laboratory Pacesetter Award, 1993, 1987
- American Chemical Society, Division of Fuel Chemistry, Best Paper Award, 1990
- R&D 100 Award, 1985
- University of Chicago Distinguished Performance Award, 1979

Patents and Publications

- 10 patents
- More than 150 publications in the peer-reviewed literature covering a variety of topics, including vibrational spectroscopy, liquid metal and molten salt chemistry, fusion reactor science and technology, corrosion research, molecular sieve science, and high-critical-temperature superconducting ceramics.

Education

- PhD, MS, Chemistry, Princeton University
- BS, Worcester Polytechnic Institute, Worcester, Massachusetts